



BIODIVERSITY

Summer 2002

Volume 12, Number 3

Suzuki Shares Vision at CGBD Annual Meeting

[The following remarks are based on a presentation by Dr. David Suzuki at the CGBD Annual Meeting in Emerald Lake, British Columbia.]

I was a college senior in 1957 when the Soviet Union electrified the world by launching Sputnik into space. In response, the U.S. poured money into science and even though a Canadian, I benefited from the expansion of university programs. I was swept up in the promise of science to push back the curtains of ignorance and reveal nature's deepest secrets.

I believed science would increase our understanding and control of the world around us so life would improve for all people. As a geneticist, my organism of choice was the fruitfly and I focused on the mechanics of genes and chromosomes.

In 1962, although an ambitious scientist and budding professor,

I was profoundly influenced by Rachel Carson's **Silent Spring**. In addressing the consequences of the widespread use of pesticides, she showed that in nature nothing exists separate and alone; instead, everything is connected to everything else. But the very essence of my analytic techniques was to isolate and disregard the fly's interconnections in order to concentrate on the processes that interested me. Carson pointed out that while we are inventive, the chemicals we create and apply to kill insect pests ripple throughout the web of life.

Like millions around the world, I was swept up in the environmental movement that Carson set in motion. In British Columbia, I became involved in protests against American nuclear tests in Amchitka, clearcut logging, offshore drilling, dams on the Peace River and pollution from pulp mills. In my mind, the problem was that human beings were taking too much from the

environment and putting too much waste back into it. The solution then was to regulate how much and what we are allowed to both remove and put back and then enforce the law. So in addition to protesting, some of us also lobbied government to pass laws and set up the infrastructure to enforce them.

By the early '70s, I realized this approach couldn't work because our knowledge of how the world works is too limited for us to set limits. For example, when DDT was found to be a potent insecticide in the 1930s, biomagnification, the concentration of molecules up the food

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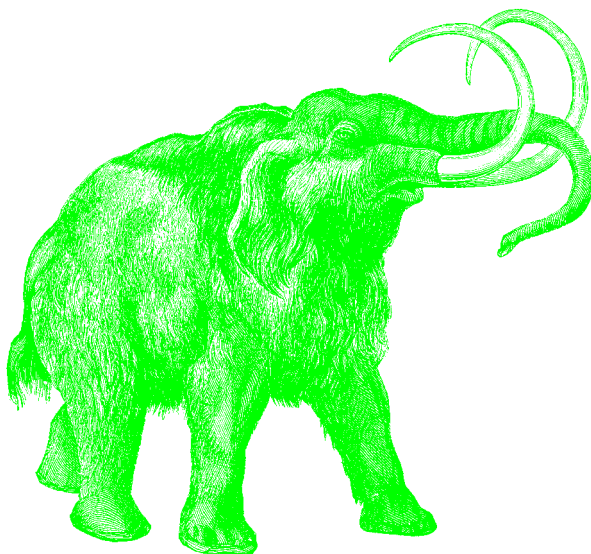
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chain, was unknown. It was only discovered after the widespread use of DDT caused declines in birds that were traced to high concentrations of the molecule in their shell glands. In the same way, the chemical inertness of CFCs that made them so useful in aerosol spray cans also meant they persisted in the environment. But no one anticipated in the upper atmosphere, ultraviolet light would break off chlorine free radicals, which are potent scavengers of ozone. Unexpected consequences will undoubtedly result from the revolutionary manipulations of genetic engineering.

As a scientist, I was faced with a crisis. Advances in science and new technological innovations were inevitable, so how could we avoid unexpected and deleterious consequences of their application? I gained a different perspective in the late 1970s when I flew to Haida Gwaii, the islands off the west coast of BC to do a documentary film about the battle over clearcut logging. I interviewed supporters and opponents of logging including Guujaaw, a Haida artist who had led the battle against logging. There was high unemployment among the Haida and logging provided jobs for them so I asked Guujaaw why he objected. He answered that if the trees were gone, "I guess we'll be like everybody else then, we won't be Haida anymore."



Guujaaw's simple statement opened a window on a radically different way of seeing the world. I interpreted him to be saying that we don't end at our skin, that being Haida meant being connected to the land – trees, fish, rocks, water, air - which embodies their history, culture and reason for being on Earth. I was galvanized by Guujaaw to seek out indigenous people in many parts of the world and everywhere, they expressed the same necessity for connection to the land. They say we are created from the earth by the four sacred elements, earth, air, fire and water. Their totems celebrate our kinship with all other life forms.



Reflecting on these insights, I realized that I had framed the problem the wrong way - there is no environment "out there" so we have to manage our interaction with it. We are quite literally the earth, inseparable from and made up of air, water, earth and fire. That's not meant in a metaphoric or poetic way but in the most scientifically demonstrable way.

From the moment of our birth to the last gasp before death, we need air every minute of our lives. We suck air deep into our lungs where it fuses with the surfactant that lines the alveoli and we filter whatever is in it. When we exhale, we retain some air in the lungs or else they would collapse. In other words, there is no border between air and us, it is always in us and fused to our very membranes. And the air that we do exhale then suffuses life around us. We are embedded in a matrix of air with each other and all the rest of terrestrial life. Every inhalation contains atoms that were once in the bodies of all people who ever lived and every exhalation will suffuse all future life.

Every human being is over 60 percent water by weight – we are water. And as we constantly imbibe water to make up for what is lost, we

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Millions of people have grown up with David Suzuki talking about science and conservation and making us think about problems and solutions. David's CBC program, *The Nature of Things* is broadcast in over 50 countries, which for a while included the United States. In the late 1980's, David broadcast a series called *It's a Matter of Survival*. The series dealt with the cumulative crises of population, consumption, soil loss, species loss, water pollution, and greenhouse gas emissions.

David and a handful of conscious thinkers got together for four days and confirmed their suspicions. We must find solutions to the root causes of the great problems facing the planet. That seemed to be a simple enough task, so David and his wife Dr. Tara Cullis set up the David Suzuki Foundation in 1990.

Our focus has been to search for local solutions to local problems that have global implications. We have found a successful combination as a "hybrid" foundation that directly grants funds to projects from internally generated capital but also raises funds from other foundations to carry out program efforts. As a hybrid activist organization we have enough capacity to use off-the-shelf

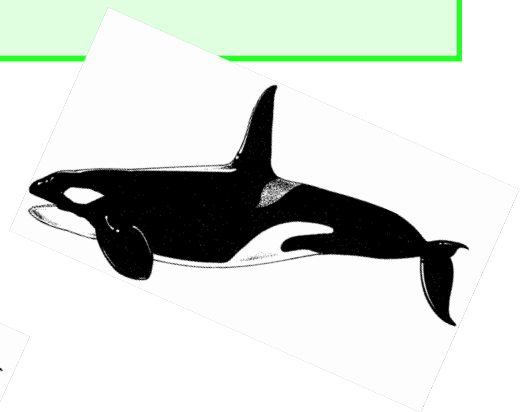
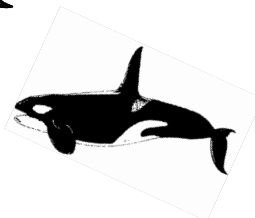
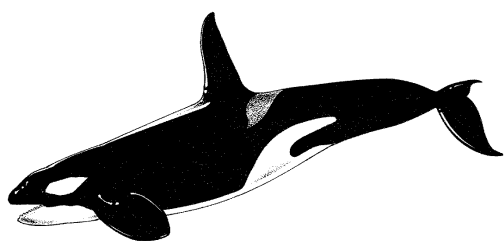
cutting edge science to engage our supporting membership and to communicate strategically through the media with decision makers to implement solutions.

Our work at the foundation filters out the best of existing knowledge, indicators and solutions in key areas. Then with David, leading scientists and key supporters we engage carefully targeted messages. While our focus is on climate change, fisheries and forestry, our successes bloom from inter-connections. There is no future in just creating parks, in just fighting for renewable energy to replace dirty coal, in just pushing for solutions to overfishing and clearcutting. We must interconnect with cradle-to-cradle information strategies.

What does that mean? Well, parks are losing their biodiversity in most cases because they are too small and the pressures on their margins are too heavy - from roads, from industry, and now from global warming. We must join together at a much greater scale and tackle these big conservation issues as baskets of issues. We must integrate protection, conservation and restoration.

*Jim Fulton, Executive Director
David Suzuki Foundation*

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become part of the hydrologic cycle whereby water ceaselessly cartwheels around the planet. Every bit of our food was once alive and most of it came from the soil. We take the carcasses of earth forms into our digestive system, tear them apart and incorporate their molecules into our body.

And all of the energy stored in our body that we need to live, grow, move and reproduce, is the fire of the Sun captured by plants during photosynthesis. All the energy liberated upon burning fossil fuels, peat and wood is also stored sunlight. And the most important revelation of the Human Genome Project is the presence of many genes in our cells that are identical to those found in bacteria, plants and all other animals. All life is related to us through a shared evolutionary history and the ultimate miracle is that our kin, the other animals and plants that share this planet with us, continually create, cleanse and replenish air, water, soil and energy on which we all depend.

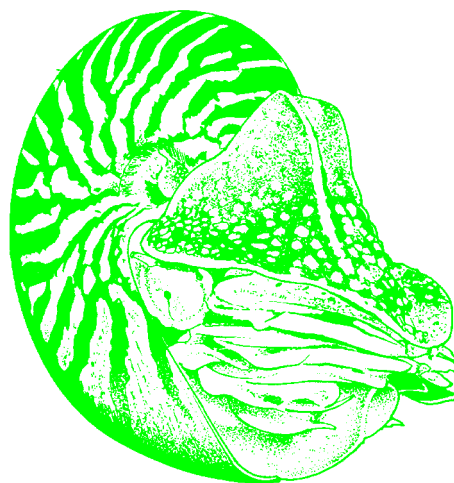
Our great boast as a species is the possession of intelligence. But what intelligent creature knowing the crucial role of air, water, soil, sunlight and biodiversity, would then proceed to treat them in the manner that we do? If we are the earth, then whatever we do to it - depositing our toxic wastes or tearing at the diverse communities of organisms - we inflict directly on ourselves.

Throughout human history, people have understood that we are deeply embedded in the natural world and dependent on it for our very well-being and survival. Many of our songs, rituals and prayers celebrated this reality and reaffirmed our commitment to act properly to maintain Earth's abundance and generosity. Today, we live in a shattered world in which it is difficult to see our interconnectedness. Cities are human-created habitats that cut us off from the natural world and create an illusion that we have escaped the bonds of our biology. The media overwhelm us with fragments of information devoid of context or history.

In focusing on parts of the world, science and technology ignore the rhythms, patterns and cycles of nature on which we depend. Economists render the many services performed by nature an externality, opting instead for an unsustainable notion that human creativity and productivity enable endless growth. In such a shattered world, cause and effect have been severed and we no longer feel any responsibility for the consequences of our actions.

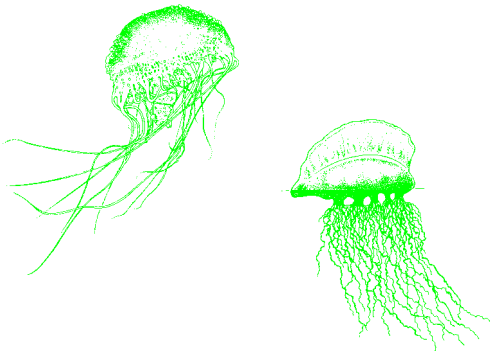
The challenge of our time is to rediscover our biological roots and our interdependence on the natural world. Other species are not resources or commodities but our relatives and their health and well being are directly linked to ours.

David Suzuki



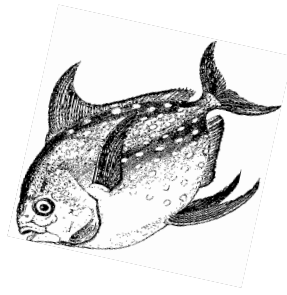
Barry Gold has joined the David and Lucile Packard Foundation in a new position as Program Officer for Sustainability Science and Conservation. He will lead the Foundation in developing an integrated grantmaking strategy that links two core Foundation programs: Science and Conservation.

Barry formerly lead the Grand Canyon Monitoring and Research Center (GCMRC) where he developed integrated ecosystem studies and implemented an adaptive management framework to meet the goals outlined in the Grand Canyon Protection Act of 1992. Prior to joining GCMRC, he was chief of Scientific Planning and Coordination at the National Biological Service and a senior environmental staff member of the Committee on Science in the U.S. House of Representatives.



Earlier this summer **Anne Kieran** left her Kendall Foundation post as Administrator to join the Irish Immigration Service.

Darren Long is the new Program Associate for Habitat with the Turner Foundation. His principal focus will be the preservation of biodiversity through ecosystem-wide habitat protection in places such as, the Southeast U.S., Rocky Mountains region, Russian Far East, Alaska and British Columbia. Before joining the Turner Foundation staff, Darren spent over five years in the wild world of chimpanzees and monkeys, coordinating research and education programs for the Living Links Center, Emory University's institute for the study of human and ape evolution.



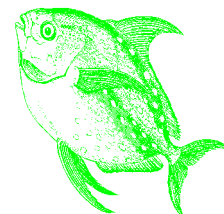
The Oak Foundation is excited to report the hiring of **Dwight Neal** as their new Belize Programme Coordinator. Dwight will be working out of an Oak office in Placencia, Belize, where he will be overseeing their Belize Programme.

Dwight previously worked in the Fisheries Department of Belize, where he oversaw all catch fisheries in the country, working closely with fishermen, fishing cooperatives and NGOs. Previously, Dwight was the Technical Coordinator for CARICOM's Fisheries Unit; CARICOM is the Caribbean's version of the European Union. Dwight has also worked in the aquaculture industry and for the University College of Belize.

Amy Solomon is the new program officer at the Bullitt Foundation. She is taking Kathy Becker's former position, with broad-ranging responsibilities that include energy and climate, toxics, mining, transportation, smart growth, sustainable agriculture, public outreach, and string theory.

Megan Waples has completed her two-year tour of duty as a program associate at the Rockefeller Brothers Fund and will be starting law school at the University of Connecticut this fall.

The Jenifer Altman Foundation welcomes **Lela Yeomans**, Administrative and Database Assistant.



CGBD WORKING GROUPS

Forest Conservation

The Sustainable Forestry/Certification sub-group held its annual summer meeting on July 15-17 at Wingspread, the conference facility operated by the Johnson Foundation in Racine, Wisconsin. The program focused on:

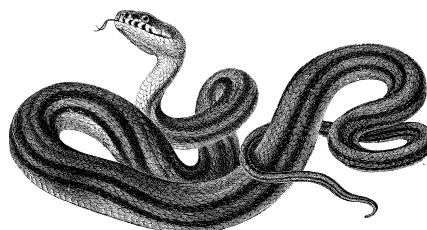
- Key Institutions and Processes in Forest Management Certification
- Re-Energizing Sustainable Forestry in North America
- The FSC and the Broader Forest Conservation Landscape
- The FSC - The System, Its Goals, Our Vision.

The meeting kicked off with a day-long visit to the Menominee Nation to get an inside view of its forestry operations.

The Public Forest sub-group continues to monitor legal and legislative activities surrounding the defense of the U.S. Forest Service's roadless areas rule. Funders participate in regular conference calls, hearing updates from the Heritage Forest Campaign and others involved in the defense efforts. The next conference call will be conducted after the Labor Day holiday.

Marine Conservation

The Marine Mammal sub-group of the Marine Working Group met on July 17-19 at the Provincetown Inn on Cape Cod. The program began on Wednesday afternoon with a seal



watching field trip, followed by the opening dinner. The program on the 18th and 19th provided opportunities to learn more about individual funder strategies as well as to begin to define a collective mission and vision. The agenda also included presentations from a variety of experts in marine mammal research and conservation. Topics discussed included:

- Northern Right Whale Conservation
- Protection of Manatees in Florida
- Marine Mammal Protection Act Reauthorization
- Acoustic Impacts on Marine Mammals.

The Marines held their “monthly” conference call in late June, focusing on coral reef conservation issues. They also touched base on Congressional efforts to reauthorize the Magnuson-Stevens Act, the nation's primary law regulating marine fisheries management. The May call addressed issues of fisheries management in New England; land-based pollution and marine water quality; and potential formation of an Ocean Political Action Committee. April's conference call highlighted regional fisheries management reform and salmon aquaculture.

Climate and Energy

June conference calls covered investment flows—public and private, and their impact on raising or lowering carbon emissions. Kathy Sessions, Health and Environmental Funders Network (HEFN) Coordinator, has moved into a full time position with the CGBD and will also manage this working group. An early December briefing is planned for the working group.

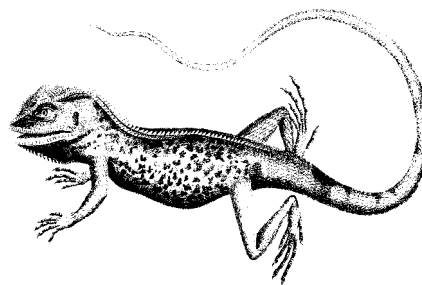
Health and Environmental Funders Network (HEFN)

A recent conference call of the Health and Environmental Funders Network (HEFN), featured guest speaker Theo Colborn (World Wildlife Fund-U.S.) on endocrine-disrupting chemicals (EDCs). Early concerns about the impacts of chemicals on health focused on links to cancer. More recently researchers have begun to discover disturbing connections between chemicals and other aspects of human health, including neurological and immune system development, behavior and reproduction.

EDCs—many of which are commonplace in plastics, pesticides, electrical equipment, even cosmetics—alter prenatal development by interfering with natural hormonal signals. Their harmful effects are being found in laboratory studies, wildlife and humans.



On the HEFN call, Colborn reported on the recent introduction of a “Hormone Disruption Research Act of 2002” (HR 4709) into the House of Representatives which would substantially increase federal funding for research on EDCs. She also challenged conventional wisdom about “safe” levels of exposure, citing research suggesting that exposures to extremely low doses of chemicals at critical times during development may actually cause greater harm to certain functions than would higher doses.

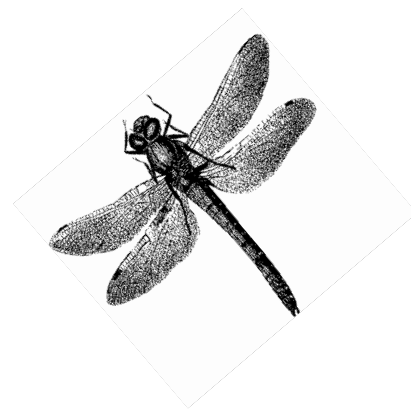


A summary of the HEFN call is available to funders upon request to hefn@aol.com. For more information on EDCs, see:

- The web site of Our Stolen Future, at www.ourstolenfuture.org;
- The latest NIEHS Environmental Health Perspectives Supplement which includes several peer-reviewed articles on links between EDCs, brain development and behavior, at ehpnet1.niehs.nih.gov/docs/2002/suppl-3/; and
- The World Wildlife Fund-U.S. web site’s page on endocrine disruptors, at www.wwfus.org/toxics/progareas/ed/index.htm.

CGBD 2002 Annual Meeting

The 15th Annual Meeting of the CGBD was held June 18-21 at Emerald Lake Lodge, Field, British Columbia. The meeting explored the interconnections among large landscape conservation, global warming, and energy extraction. A distinguished roster of speakers included the scientists David Suzuki, David Schindler and John Terborgh. A committee of members volunteered to act with the Climate and Energy Working Group to explore how climate change as a driver of biodiversity loss affects the entire CGBD membership.



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*"I don't know anything about global warming,
but these ice cubes are melting like crazy."*

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